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DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

August 8, 2016

Brad Boyter
Western Clay Company
P.O. Box 127
Aurora, Utah 84620

Subject: Second Review of Amended Notice of Intention to Commence Large Mining Operations, Western Clay Company, Bentonite Pits Mine, M/041/0012, Sevier County, Utah

Dear Mr. Boyter:

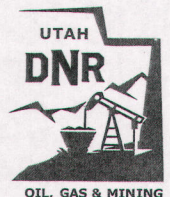
The Division of Oil, Gas and Mining has reviewed the referenced replacement Notice of Intention to Commence Large Mining Operations (Notice) which was received July 5, 2016. The Division noticed that significant effort and progress was made while reviewing this submittal. The attached comments will need to be addressed before tentative approval may be granted.

The comments are listed under the applicable Minerals Rule heading; please format your response in a similar fashion. Please address only those items requested in the attached technical review by sending **replacement pages** for the Notice using redline and strikeout text. After the Notice is determined technically complete, the Division will request two clean copies of the complete and corrected plan. Upon final approval, both copies will be stamped approved and one will be returned to you.

The Division has the following general comments:

- The submittal should be formatted to easily incorporate additional revisions and amendments.
- The Division may have additional comments based on the review responses.

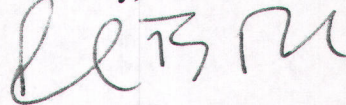
The Division will suspend further review of the Notice of Intention until your response to this letter is received. Also, your outstanding request for partial bond release will be addressed as soon as the reclamation cost estimate is finalized.



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If you have any questions concerning the review, please contact Peter Brinton at 801-538-5258 or me at 801-538-5261. Thank you for your cooperation in completing this permitting action.

Sincerely,

A handwritten signature in black ink, appearing to read 'PB Baker', written over the word 'Sincerely,'.

Paul B. Baker
Minerals Program Manager

PBB: pnb: eb
Attachment: Review
cc: Andy Bedingfield, SITLA (ML-1937) (abedingfield@utah.gov)
P:\GROUPS\MINERALS\WP\M041-Sevier\M0410012-BentonitePits\final\REV2-7442-08052016.docx

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**INITIAL REVIEW OF NOTICE OF INTENTION
TO COMMENCE LARGE MINING OPERATIONS
Western Clay Company
Bentonite Pits Mine
M/041/0012
August 5, 2016**

R647-4-105 - Maps, Drawings & Photographs

105.1 - Topographic base map, boundaries, pre-act disturbance

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
1	Base Map	<p><i>Previous Comment 11: Provide the additional information required for a topographic base map:</i></p> <p>1) ... electrical transmission lines...</p> <p>3) Areas previously impacted by mining for which you are not responsible...</p> <p>Identify the electric transmission lines along Sheep Trail Road. Identify whether Western Clay is responsible for reclamation of the small test pits visible on aerial photos west and southwest of the mine. It is probably in Western Clay's best interest to clearly show the previous disturbances for which Western Clay is not responsible (pre-law disturbances and possibly others) on an aerial photo.</p>	pnb	

105.2 - Surface facilities map

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
2	North Slope map	The West Strip topsoil pile is shown on the North Slope map as overburden. Correct the erroneous map for consistency.	pnb	
3	General	<p><i>Previous Comment 13: Identify the following ... on the Surface Facilities Maps:</i></p> <p>1) Roads,</p> <p>2) Drainage control structures (ponds, ditches, and any culverts).</p> <p>On Appendix 2 - Figure 2, identify the existing channel. On Appendix 2 - Figure 3, add the intermittent or perennial pond on regraded Sheep Trail pit.</p>	pnb	

105.3 - Drawings or Cross Sections (slopes, roads, pads, etc.)

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
4	Omission	<p><i>Previous comment 15: Please provide a geologic map and geologic cross sections. Use standard USGS symbols.</i></p> <p>Please add the location of the mine to the geologic map and cross section. This may be hand drawn in with a straight edge – the shape shown in black on the Appendix2 Figure 1 map would be ideal. On the lithology column add a simple arrow for the mine, and on Section A-A' add an arrow.</p>	lah	

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Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
5	App. 3, Figure 4	No stone check dams are visible on 2014 aerial photos. The Division will communicate with Western Clay to ensure the placement of the structures.	pnb	
6	App. 4	Update the reclamation treatment maps, consistent with changes to the soil replacement plan, as recommended by the Division. See comments in Section 110.5 of this review.	pnb	

R647-4-106 - Operation Plan

106.2 - Type of operations - mining method, onsite processing, deleterious or acid-forming materials

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
7	Page 6	<i>Previous Comment 22: Identify the maximum slope angles in existing and future pits during mining. The Reclamation Practices of R647-4-111 require slopes to be no steeper than 45 degrees. See related comments in Section 109.4.</i> Identify the maximum slope angles, consistent with the cross-sections.	pnb	
8	Page 6	State whether the Red Pit expansion area is currently planned for mining or not.	pnb	

106.3 - Estimated acreages disturbed, reclaimed, annually/sequentially

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
9	Page 6	Clarify the meaning of the categories "Acreage of disturbed area to be reclaimed" and "Acreage of undisturbed area". All disturbances need to be reclaimed. Do they represent the existing acreages as of 2016? If so, please indicate this.	pnb	

R647-4-109 - Impact Assessment

109.5 - Actions to mitigate any impacts

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
10	Page 13, last paragraph	<i>Previous comment 37: The Notice includes a slope stability technique that "can also be" used to mitigate the impacts, but the Division needs a commitment to maintain an adequate Factor of Safety.</i> Please include a statement to maintain an adequate Factor of Safety.	lah	

R647-4-110 - Reclamation Plan

110.2 – Reclamation of roads, highwalls, slopes, impoundments, drainages, pits, piles, shafts, adits, etc.

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
11	Page 14	Briefly discuss methods for determining volumes for dozer and excavator activities. Slopes in competent rock (e.g. benched highwalls) are required to be no steeper than 45 degrees (1H:1V) overall, but may remain that steep.	pnb	
12	Page 15	<i>Previous Comment 40: Briefly discuss the partial backfilling ... to date.</i> Briefly discuss the North Slope backfilling to date.	pnb	
13	Page 15	<i>Previous Comment 41: Identify reclamation timing and plans for drainage control structures (e.g. ditches and settling ponds).</i> State whether settling ponds will need to remain after regrading during revegetation.	pnb	
14	Page 15	Note: The Division would like to visit the site prior to approving reclamation plans.	pnb	

110.4 - Description or treatment/location/disposition of deleterious or acid forming materials, including map

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
15	Page 16, para 1	<i>Previous Comment 42: Since deleterious materials can include materials introduced to the site (such as fuels and other chemicals – see Section 106.2), identify the plans for removal or disposal of any such materials as part of reclamation.</i> Indicate that these introduced deleterious materials will be removed as part of reclamation. Discussion of storage during operations can be deleted.	pnb	

110.5 - Revegetation planting program

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
16	Page 16	<i>Previous Comment 43: If the 50,000 cubic yards of soil reportedly saved were evenly spread over the entire area of 62.3 acres, the depth would be six inches. Also consider new soil salvaged.</i> The Division questions whether soil could be efficiently spread to 2 and 3 inches in depth. The Division acknowledges that unknown amounts of mined areas had very little soil prior to mining, and recommends that Western Clay propose a soil replacement plan as follows, in which: <ol style="list-style-type: none"> 1) Some soil material from the Sheep Trail area be hauled to the Red Pit area during reclamation for application and spreading in that area, and 2) Soil and/or other amendments be selectively spread at greater depths over smaller areas of the North Slope and Red Pit, leaving some areas without soils. These bare areas would still need to be ripped and seeded. 	pnb	

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Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
17	Appendix 7	Update the reclamation cost estimate to reflect recommended changes associated with the soil replacement portion of the reclamation plan, as discussed in 110.5.	pnb	
18	Appendix 7	Note: The cost estimate does not include the Red Hill expansion area. If you wish to gain approval for mining in this area (outside the existing disturbance configuration), you will need to provide additional plans for mining and reclamation, as well as additional reclamation cost estimates and reclamation surety.	pnb	
19	Appendix 7	Note: The Division would like to visit the site prior to approving reclamation cost estimates.	pnb	